group consisting of NDGA, AA861, Indomethacin, ETYA, SHA, Baicalein, 3,4-dihydroxycinnamic acid, cinnamyl-3,4-dihydroxy-a-cyanocinnamate, Gossypol, 5,6-dehydro arachidonic acid, Baeomycesic acid, Baicalein monohydrate, 3,4-dihydroxyphenyl ethanol, 4,5-dehydro docosahexaenoic acid, eicosatriynoic acid, 5-HETE lactone, 5(S)-HpETE, 12(S)-HpETE, 15(S)-HpETE, 15(S)-HETrE, 9,12-octadecadiynoic acid, a-pentyl-3-(2-quinolinylmethoxy)-benzenemethanol, BHA, BHT, 3-amino-1-/m-(trifluoromethyl)phenyl/-2-pyrazoline, and 6,9-diepoxy-6,9-phenylimino-delta 6,8-prostaglandin I 1.

4. The method of claim 2, wherein the lipoxygenase inhibitor is fed to the animal.

5. The method of claim 4, wherein the lipoxygenase inhibitor is NDGA.

6. (Amended) The method of claim 5, wherein the NDGA is fed in an amount from about 0.01% to about 5% by weight in diet.

a2

7. (Amended) The method of claim 5, wherein the NDGA is fed in an amount from about 0.05% to about 1% by weight in diet.

8. (Amended) The method of claim 5, wherein the NDGA is fed in an amount from about 0.1% to about 0.5% by weight in diet.

9. The method of claim 2, wherein the lipoxygenase inhibitor is an anti-lipoxygenase antibody.

a3

10. (Amended) The method of claim 2, further comprising the step of:

administering an agent that comprises *trans*-10, *cis*-12 conjugated linoleic acid (CLA) to the animal.

11. (Amended) The method of claim 10, wherein the agent is fed to the animal.

12. (Amended) The method of claim 11, wherein the agent comprises *trans*-10, *cis*-12 CLA in an amount from about 0.01% to about 5% by weight in diet.

13. (Amended) The method of claim 11, wherein the agent comprises *trans*-10, *cis*-12 CLA in an amount from about 0.05% to about 1% by weight in diet.

14. (Amended) The method of claim 11, wherein the agent comprises *trans*-10, *cis*-12 CLA in an amount from about 0.1% to about 0.5% by weight in diet.

15. The method of claim 1, wherein the reducing step comprises the step of lowering lipoxygenase level in the animal.

16. (Amended) The method of claim 15, wherein the lowering step includes the step of administering to the animal an oligonucleotide that reduces or prevents translation of a lipoxygenase enzyme.

17. The method of claim 1, wherein the animal is selected from the group consisting of a mammal, an avian animal and a fish.

18. The method of claim 17, wherein the mammal is selected from a human, a primate, a bovine, a canine, a porcine, an ovine, a caprine, a feline and a rodent.

19. The method of claim 17, wherein the avian animal is selected from a chicken, a duck, a turkey and a quail.

20. (Amended) A method for inhibiting LPL activity associated with a cell comprising the step of:

reducing lipoxygenase activity in the cell by an amount sufficient to inhibit LPL activity associated with the cell.

21. (Amended) A method for inhibiting LPL activity associated with a cell comprising the step of:

treating the cell with an amount of a lipoxygenase inhibitor [at a dose] sufficient to inhibit LPL activity associated with the cell.

22. The method of claim 21, wherein the lipoxygenase inhibitor is selected from

NDGA, AA861, Indomethacin, ETYA, SHA, Baicalein, 3,4-dihydroxycinnamic acid, cinnamyl-3,4-dihydroxy-a-cyanocinnamate, Gossypol, 5,6-dehydro arachidonic acid, Baeomycesic acid, Baicalein monohydrate, 3,4-dihydroxyphenyl ethanol, 4,5-dehydro docosahexaenoic acid, eicosatriynoic acid, 5-HETE lactone, 5(S)-HpETE, 12(S)-HpETE, 15(S)-HpETE, 15(S)-HETrE, 9,12-octadecadiynoic acid, a-pentyl-3-(2-quinolinylmethoxy)-benzenemethanol, BHA, BHT, 3-amino-1-/m-(trifluoromethyl)phenyl/-2-pyrazoline, and 6,9-diepoxy-6,9-phenylimino-delta 6,8-prostaglandin I 1.

A7

23. (Amended) The method of claim 22, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 0.1 μM to about 5 mM.

24. (Amended) The method of claim 22, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 10 μM to about 500 μM.

25. (Amended) The method of claim 22, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 30 μM to about 200 μM.

26. (Amended) The method of claim 21, wherein the lipoxygenase inhibitor comprises an anti-lipoxygenase antibody.

27. (Amended) The method of claim 21, further comprising the step of:

treating the cell with an agent that comprises *trans*-10, *cis*-12 conjugated linoleic acid (CLA).

28. (Amended) The method of claim 27, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 0.1 μM to about 5 mM.

29. (Amended) The method of claim 27, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 10 μM to about 500 μM.

30. (Amended) The method of claim 27, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 30 μM to about 200 μM.

31. (Amended) The method of claim 20, wherein the reducing step comprises the step of lowering lipoxygenase level in the cell.

a7

32. (Amended) The method of claim 31, wherein the lowering step comprises the step of treating the cell with an antisense oligonucleotide of lipoxygenase mRNA.

Cont.

33. The method of claim 20, wherein the cell is 3T3-L1 adipocyte.

a8

34. (Amended) A method for reducing triacylglyceride level in a cell comprising the step of:

reducing lipoxygenase activity in the cell by an amount sufficient to reduce triacylglyceride level in the cell.

35. (Amended) A method for reducing triacylglyceride level in a cell comprising the step of:

treating the cell with a lipoxygenase inhibitor in an amount sufficient to reduce the triacylglyceride level in the cell.

36. The method of claim 35, wherein the lipoxygenase inhibitor is selected from NDGA, AA861, Indomethacin, ETYA, SHA, Baicalein, 3,4-dihydroxycinnamic acid, cinnamyl-3,4-dihydroxy-a-cyanocinnamate, Gossypol, 5,6-dehydro arachidonic acid, Baeomycesic acid, Baicalein monohydrate, 3,4-dihydroxyphenyl ethanol, 4,5-dehydro docosahexaenoic acid, eicosatriynoic acid, 5-HETE lactone, 5(S)-HpETE, 12(S)-HpETE, 15(S)-HpETE, 15(S)-HETrE, 9,12-octadecadiynoic acid, a-pentyl-3-(2-quinolinylmethoxy)-benzenemethanol, BHA, BHT, 3-amino-1-/m-(trifluoromethyl)phenyl/-2-pyrazoline, and 6,9-diepoxy-6,9-phenylimino-delta 6,8-prostaglandin I 1.

a9

37. (Amended) The method of claim 35, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 0.1 μM to about 5 mM.

38. (Amended) The method of claim 35, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 10 μM to about 500 μM.

39. (Amended) The method of claim 35, wherein the cell is treated with lipoxygenase inhibitor at a concentration from about 30 μM to about 200 μM.

40. (Amended) The method of claim 35, wherein the lipoxygenase inhibitor comprises an anti-lipoxygenase antibody.

41. (Amended) The method of claim 35, further comprising the step of:

treating the cell with an agent that comprises *trans*-10, *cis*-12 conjugated linoleic acid (CLA).

42. (Amended) The method of claim 41, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 0.1 μM to about 5 mM.

43. (Amended) The method of claim 41, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 10 μM to about 500 μM.

44. (Amended) The method of claim 41, wherein the agent comprises *trans*-10, *cis*-12 CLA at a concentration from about 30 μM to about 200 μM.

45. (Amended) The method of claim 34, wherein the reducing step comprises the step of lowering lipoxygenase level in the cell.

46. (Amended) The method of claim 45, wherein the lowering step comprises the step of treating the cell with an antisense oligonucleotide of lipoxygenase mRNA.

47. The method of claim 34, wherein the cell is 3T3-L1 adipocyte.